

including substitutions, additions or deletions thereof, provided that said peptide is capable of neutralizing or modulating the production of anti-myelin basic protein.

1226 23. The method of claim 1, wherein the peptide of from about 8 to about 25 amino acids has a sequence contained within amino acid residues 75-106 of SEQ ID NO:1, including substitutions, additions or deletions thereof, provided that said peptide is capable of neutralizing or modulating the production of anti-myelin basic protein.

24. The method of claim 1, wherein the peptide of from about 8 to about 25 amino acids has a sequence contained within amino acid residues 80-97 of SEQ ID NO:1, including substitutions, additions or deletions thereof, provided that said peptide is capable of neutralizing or modulating the production of anti-myelin basic protein.

25. The method of claim 1, wherein the peptide of from about 8 to about 25 amino acids has a sequence contained within amino acid residues 82-99 of SEQ ID NO:1, including substitutions, additions or deletions thereof, provided that said peptide is capable of neutralizing or modulating the production of anti-myelin basic protein.

a' cont 26. The method of claim 1, wherein the peptide of from about 8 to about 25 amino acids has a sequence contained within amino acid residues 84-93, 85-94, 86-95, or 87-96 of SEQ ID NO:1, including substitutions, additions or deletions thereof, provided that said peptide is capable of neutralizing or modulating the production of anti-myelin basic protein.

27. The method of claim 1, wherein the peptide of from about 8 to about 25 amino acids has a sequence contained within amino acid residues 91-106 of SEQ ID NO:1, including substitutions, additions or deletions thereof, provided that said peptide is capable of neutralizing or modulating the production of anti-myelin basic protein.

28. The method of claim 1, wherein the peptide of from about 8 to about 25 amino acids has a sequence contained within amino acid residues 75-95 of SEQ ID NO:1, including substitutions, additions or deletions thereof, provided that said peptide is capable of neutralizing or modulating the production of anti-myelin basic protein.

29. The method of claim 1, wherein the peptide of from about 8 to about 25 amino acids has a sequence contained within amino acid residues 64-78 of SEQ ID NO:1, including substitutions, additions or deletions thereof, provided that said peptide is capable of neutralizing or modulating the production of anti-myelin basic protein.

30²² 30. The method of claim 1, wherein the peptide is administered in admixture with a pharmaceutical acceptable carrier.

31²² 31. The method of claim 1, wherein the peptide is administered intravenously or intrathecally, or in combination.

32²² 32. The method of claim 1, wherein the peptide is administered as a single or sequential dose.

33²² 33. The method of claim 1, wherein the patient has chronic progressive MS.

34²² 34. The method of claim 1, wherein the patient has an acute MS relapse.

35²² 35. A method of reducing free anti-myelin basic protein in a patient in need thereof by administering to said patient an effective amount of a peptide of from about 8 to about 25 amino acids and having a sequence contained within amino acid residues 61-106 of SEQ ID NO:1, including substitutions, additions or deletions thereof, provided that said peptide is capable of reducing free anti-myelin basic protein.

36³⁵ 36. The method of claim 1, wherein the peptide of from about 8 to about 25 amino acids has a sequence contained within amino acid residues 75-106 of SEQ ID NO:1, including substitutions, additions or deletions thereof, provided that said peptide is capable of neutralizing or modulating the production of anti-myelin basic protein.

37³⁵ 37. The method of claim 1, wherein the peptide of from about 8 to about 25 amino acids has a sequence contained within amino acid residues 80-97 of SEQ ID NO:1, including substitutions, additions or deletions thereof, provided that said peptide is capable of neutralizing or modulating the production of anti-myelin basic protein.

38³⁵ 38. The method of claim 1, wherein the peptide of from about 8 to about 25 amino acids has a sequence contained within amino acid residues 82-99 of SEQ ID NO:1, including substitutions, additions or deletions thereof, provided that said peptide is capable of neutralizing or modulating the production of anti-myelin basic protein.

39³⁵ 39. The method of claim 1, wherein the peptide of from about 8 to about 25 amino acids has a sequence contained within amino acid residues 84-93, 85-94, 86-95, or 87-96 of SEQ ID NO:1, including substitutions, additions or deletions thereof, provided that said peptide is capable of neutralizing or modulating the production of anti-myelin basic protein.

40 16. The method of claim ³⁵14, wherein the peptide of from about 8 to about 25 amino acids has a sequence contained within amino acid residues 91-106 of SEQ ID NO:1, including substitutions, additions or deletions thereof, provided that said peptide is capable of neutralizing or modulating the production of anti-myelin basic protein.

41 20. The method of claim ³⁵14, wherein the peptide of from about 8 to about 25 amino acids has a sequence contained within amino acid residues 75-95 of SEQ ID NO:1, including substitutions, additions or deletions thereof, provided that said peptide is capable of neutralizing or modulating the production of anti-myelin basic protein.

42 21. The method of claim ³⁵14, wherein the peptide of from about 8 to about 25 amino acids has a sequence contained within amino acid residues 64-78 of SEQ ID NO:1, including substitutions, additions or deletions thereof, provided that said peptide is capable of neutralizing or modulating the production of anti-myelin basic protein.

43 22. The method of claim ³⁵14, wherein the peptide is administered in admixture with a pharmaceutical acceptable carrier.

44 23. The method of claim ³⁵14, wherein the peptide is administered intravenously or intrathecally, or in combination.

45 24. The method of claim ³⁵14, wherein the peptide is administered as a single or sequential dose.

46 25. The method of claim ³⁵14, wherein the patient has chronic progressive MS.

~~47 26. The method of claim ³⁵14, wherein the patient has an acute MS relapse.~~

48 27. A method of producing a peptide of from about 8 to about 25 amino acids and having a sequence contained within amino acid residues 61-106 of SEQ ID NO:1, including substitutions, additions or deletions thereof, provided that said peptide is capable of neutralizing or modulating the production of anti-myelin basic protein, comprising expressing a DNA encoding the peptide in a host cell and isolating the peptide produced by the host cell.

49 28. The method of claim ⁴⁸27, wherein the DNA encodes a sequence contained within amino acid residues 75-106 of SEQ ID NO:1, including substitutions, additions or deletions thereof, provided that said peptide is capable of neutralizing or modulating the production of anti-myelin basic protein.

226 ~~50~~ ⁴⁸26. The method of claim ~~27~~⁴⁸, wherein the DNA encodes a sequence contained within amino acid residues 80-97 of SEQ ID NO:1, including substitutions, additions or deletions thereof, provided that said peptide is capable of neutralizing or modulating the production of anti-myelin basic protein.

~~5130~~ ⁴⁸30. The method of claim ~~27~~⁴⁸, wherein the DNA encodes a sequence contained within amino acid residues 82-99 of SEQ ID NO:1, including substitutions, additions or deletions thereof, provided that said peptide is capable of neutralizing or modulating the production of anti-myelin basic protein.

~~5231~~ ⁴⁸31. The method of claim ~~27~~⁴⁸, wherein the DNA encodes a sequence contained within amino acid residues 84-93, 85-94, 86-95, or 87-96 of SEQ ID NO:1, including substitutions, additions or deletions thereof, provided that said peptide is capable of neutralizing or modulating the production of anti-myelin basic protein.

all cancelled ~~53~~ ⁴⁸32. The method of claim ~~27~~⁴⁸, wherein the DNA encodes a sequence contained within amino acid residues 91-106 of SEQ ID NO:1, including substitutions, additions or deletions thereof, provided that said peptide is capable of neutralizing or modulating the production of anti-myelin basic protein.

~~54~~ ⁴⁸33. The method of claim ~~27~~⁴⁸, wherein the DNA encodes a sequence contained within amino acid residues 75-95 of SEQ ID NO:1, including substitutions, additions or deletions thereof, provided that said peptide is capable of neutralizing or modulating the production of anti-myelin basic protein.

~~55~~ ⁴⁸34. The method of claim ~~27~~⁴⁸, wherein the DNA encodes a sequence contained within amino acid residues 64-78 of SEQ ID NO:1, including substitutions, additions or deletions thereof, provided that said peptide is capable of neutralizing or modulating the production of anti-myelin basic protein.

Remarks

By the present amendment, claims 1 to 21 have been cancelled without prejudice. New claims 1 to 34 are submitted herewith. Accordingly, upon entry of the amendment, claims 1 to 34 are pending.

1. A method of treating multiple sclerosis in a patient in need thereof by administering to said patient an effective amount of a peptide of from about 8 to about 25 amino acids and having a sequence contained within amino acid residues 61-106 of SEQ ID NO:1, including substitutions, additions or deletions thereof, provided that said peptide is capable of neutralizing or modulating the production of anti-myelin basic protein.

2. The method of claim 1, wherein the peptide of from about 8 to about 25 amino acids has a sequence contained within amino acid residues 75-106 of SEQ ID NO:1, including substitutions, additions or deletions thereof, provided that said peptide is capable of neutralizing or modulating the production of anti-myelin basic protein.

3. The method of claim 1, wherein the peptide of from about 8 to about 25 amino acids has a sequence contained within amino acid residues 80-97 of SEQ ID NO:1, including substitutions, additions or deletions thereof, provided that said peptide is capable of neutralizing or modulating the production of anti-myelin basic protein.

4. The method of claim 1, wherein the peptide of from about 8 to about 25 amino acids has a sequence contained within amino acid residues 82-99 of SEQ ID NO:1, including substitutions, additions or deletions thereof, provided that said peptide is capable of neutralizing or modulating the production of anti-myelin basic protein.

5. The method of claim 1, wherein the peptide of from about 8 to about 25 amino acids has a sequence contained within amino acid residues 84-93, 85-94, 86-95, or 87-96 of SEQ ID NO:1, including substitutions, additions or deletions thereof, provided that said peptide is capable of neutralizing or modulating the production of anti-myelin basic protein.

6. The method of claim 1, wherein the peptide of from about 8 to about 25 amino acids has a sequence contained within amino acid residues 91-106 of SEQ ID NO:1, including substitutions, additions or deletions thereof, provided that said peptide is capable of neutralizing or modulating the production of anti-myelin basic protein.
7. The method of claim 1, wherein the peptide of from about 8 to about 25 amino acids has a sequence contained within amino acid residues 75-95 of SEQ ID NO:1, including substitutions, additions or deletions thereof, provided that said peptide is capable of neutralizing or modulating the production of anti-myelin basic protein.
8. The method of claim 1, wherein the peptide of from about 8 to about 25 amino acids has a sequence contained within amino acid residues 64-78 of SEQ ID NO:1, including substitutions, additions or deletions thereof, provided that said peptide is capable of neutralizing or modulating the production of anti-myelin basic protein.
9. The method of claim 1, wherein the peptide is administered in admixture with a pharmaceutical acceptable carrier.
10. The method of claim 1, wherein the peptide is administered intravenously or intrathecally, or in combination.
11. The method of claim 1, wherein the peptide is administered as a single or sequential dose.
12. The method of claim 1, wherein the patient has chronic progressive MS.
13. The method of claim 1, wherein the patient has an acute MS relapse.

14. A method of reducing free anti-myelin basic protein in a patient in need thereof by administering to said patient an effective amount of a peptide of from about 8 to about 25 amino acids and having a sequence contained within amino acid residues 61-106 of SEQ ID NO:1, including substitutions, additions or deletions thereof, provided that said peptide is capable of reducing free anti-myelin basic protein.

15. The method of claim 14, wherein the peptide of from about 8 to about 25 amino acids has a sequence contained within amino acid residues 75-106 of SEQ ID NO:1, including substitutions, additions or deletions thereof, provided that said peptide is capable of neutralizing or modulating the production of anti-myelin basic protein.

16. The method of claim 14, wherein the peptide of from about 8 to about 25 amino acids has a sequence contained within amino acid residues 80-97 of SEQ ID NO:1, including substitutions, additions or deletions thereof, provided that said peptide is capable of neutralizing or modulating the production of anti-myelin basic protein.

17. The method of claim 14, wherein the peptide of from about 8 to about 25 amino acids has a sequence contained within amino acid residues 82-99 of SEQ ID NO:1, including substitutions, additions or deletions thereof, provided that said peptide is capable of neutralizing or modulating the production of anti-myelin basic protein.

18. The method of claim 14, wherein the peptide of from about 8 to about 25 amino acids has a sequence contained within amino acid residues 84-93, 85-94, 86-95, or 87-96 of SEQ ID NO:1, including substitutions, additions or deletions thereof, provided that said peptide is capable of neutralizing or modulating the production of anti-myelin basic protein.

19. The method of claim 14, wherein the peptide of from about 8 to about 25 amino acids has a sequence contained within amino acid residues 91-106 of SEQ ID NO:1, including substitutions, additions or deletions thereof, provided that said peptide is capable of neutralizing or modulating the production of anti-myelin basic protein.
20. The method of claim 14, wherein the peptide of from about 8 to about 25 amino acids has a sequence contained within amino acid residues 75-95 of SEQ ID NO:1, including substitutions, additions or deletions thereof, provided that said peptide is capable of neutralizing or modulating the production of anti-myelin basic protein.
21. The method of claim 14, wherein the peptide of from about 8 to about 25 amino acids has a sequence contained within amino acid residues 64-78 of SEQ ID NO:1, including substitutions, additions or deletions thereof, provided that said peptide is capable of neutralizing or modulating the production of anti-myelin basic protein.
22. The method of claim 14, wherein the peptide is administered in admixture with a pharmaceutical acceptable carrier.
23. The method of claim 14, wherein the peptide is administered intravenously or intrathecally, or in combination.
24. The method of claim 14, wherein the peptide is administered as a single or sequential dose.
25. The method of claim 14, wherein the patient has chronic progressive MS.
26. The method of claim 14, wherein the patient has an acute MS relapse.

27. A method of producing a peptide of from about 8 to about 25 amino acids and having a sequence contained within amino acid residues 61-106 of SEQ ID NO:1, including substitutions, additions or deletions thereof, provided that said peptide is capable of neutralizing or modulating the production of anti-myelin basic protein, comprising expressing a DNA encoding the peptide in a host cell and isolating the peptide produced by the host cell.

28. The method of claim 27, wherein the DNA encodes a sequence contained within amino acid residues 75-106 of SEQ ID NO:1, including substitutions, additions or deletions thereof, provided that said peptide is capable of neutralizing or modulating the production of anti-myelin basic protein.

29. The method of claim 27, wherein the DNA encodes a sequence contained within amino acid residues 80-97 of SEQ ID NO:1, including substitutions, additions or deletions thereof, provided that said peptide is capable of neutralizing or modulating the production of anti-myelin basic protein.

30. The method of claim 27, wherein the DNA encodes a sequence contained within amino acid residues 82-99 of SEQ ID NO:1, including substitutions, additions or deletions thereof, provided that said peptide is capable of neutralizing or modulating the production of anti-myelin basic protein.

31. The method of claim 27, wherein the DNA encodes a sequence contained within amino acid residues 84-93, 85-94, 86-95, or 87-96 of SEQ ID NO:1, including substitutions, additions or deletions thereof, provided that said peptide is capable of neutralizing or modulating the production of anti-myelin basic protein.

32. The method of claim 27, wherein the DNA encodes a sequence contained within amino acid residues 91-106 of SEQ ID NO:1, including substitutions,

additions or deletions thereof, provided that said peptide is capable of neutralizing or modulating the production of anti-myelin basic protein.

33. The method of claim 27, wherein the DNA encodes a sequence contained within amino acid residues 75-95 of SEQ ID NO:1, including substitutions, additions or deletions thereof, provided that said peptide is capable of neutralizing or modulating the production of anti-myelin basic protein.

34. The method of claim 27, wherein the DNA encodes a sequence contained within amino acid residues 64-78 of SEQ ID NO:1, including substitutions, additions or deletions thereof, provided that said peptide is capable of neutralizing or modulating the production of anti-myelin basic protein.